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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/802,202

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Martin S. Bosch

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12/15/2005

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EXAMINER

PATEL, DHARTI HARIDAS

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/802,202	Applicant(s) BOSCH ET AL.	
	Examiner Dharti H. Patel	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Page 5, lines 1, 2, 20, Page 6, line 17, "breakers 28" – should be "breakers 24" to be consistent with the drawings.

Page 5, line 1, "the feeders 24, 26" – should be "the feeders 26, 28" to be consistent with the drawings.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being unpatentable by Rajda et al., Patent No. 6,560,128. With respect to claim 1, Rajda et al. teaches a static transfer switch for switching a load between multiple power sources in response to a drop in quality of the power delivered from one of the sources. The static transfer switch 210 comprises a first feeder operable to be connected to the first bus; a second feeder operable to be connected to the second bus; and a solid-state interconnection 218 between the feeders and operable to selectively

tie the first bus to the second bus and selectively isolate the first bus from the second bus without the use of moving parts between the buses, thereby reliably allowing power to flow between the buses as disclosed in Col. 8, lines 9-18 and Fig. 4.

With respect to claim 2, Rajda teaches a static transfer switch 210 wherein the interconnection 218 includes a pair of silicon controlled rectifiers 228a-230a, 232a-234a each operable to handle all of the power flow between the buses as disclosed in Col. 8, lines 34-42, lines 62-67, Col. 9, lines 1-4 and Fig. 4.

With respect to claim 3, Rajda et al. teaches a static transfer switch 210 wherein the feeders and the interconnection 218 include three phases as disclosed in Col. 8, lines 34-42.

With respect to claim 4, Rajda et al. teaches a static transfer switch 210 wherein the interconnection 218 includes three pairs of silicon controlled rectifiers 228a-234a, 228b-234b, 228c-234c each operable to handle all of the power flow between the buses for one of the phases as disclosed in Col. 8, lines 34-42, lines 62-67, Col. 9, lines 1-4 and Fig. 4.

With respect to claim 5, Rajda et al. teaches static transfer switch 210 wherein each pair of SCRs 228a-234a, 228b-234b, 228c-234c electrically couples a different one of the phases of the first bus with a corresponding phase of the second bus as disclosed in Fig. 4.

With respect to the limitation of a voltage selected from the group consisting of 120, 240 208 and 480 volts in claim 6, these recited voltages are

standard voltage values for motors as utilities supplying power in the U.S. are required to provide power in multiples of 120 Volts. Furthermore, it has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experiment. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

With respect to claim 7, Rajda et al. further teaches that the feeders and the interconnection 218 are rated for a voltage of 25 Kilo Volts as disclosed in Col. 9, lines 42-43. Furthermore, it has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experiment. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

With respect to claim 8, Rajda et al. teaches that the static transfer switch 210 further comprises a controller to bias the interconnection 218, thereby shorting between the buses as disclosed in Col. 9, lines 5-8.

With respect to claim 9, Rajda et al. teaches a static transfer switch 210 wherein the controller is further operable to control a breaker in order to isolate a power source as disclosed in Col. 9, lines 5-8.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Leary et al., Patent No. 6,331,798, in view of Rajda et al., Patent No. 6,560,128. With respect to claim 10, O'Leary et al. teaches a high-speed source-transfer switching system that controls the transfer of a load from one source to another to minimize transfer delays. The high-speed source-transfer switching system 110 comprises a first output operable to be connected to the first load 114; a second output operable to be connected to the second load 116; a first input operable to be connected to the first source 16, such that during normal operations the first input is connected to the first output with the first source 16 supplying power to the first load 114; a second input operable to be connected to the second source 18, such that during normal operations the second input is connected to the second output with the second source 18 supplying power to the second load; a solid-state interconnection SSS3 121 between the input and outputs including three pairs of thyristors operable to selectively tie the first output to the second input and selectively tie the second output to the first input. O'Leary does not teach that the solid-state interconnection includes three pairs of SCRs. However, Rajda et al. teaches a solid-state interconnection 218 that comprises three pairs of SCR's. Thyristors and SCR's are structurally similar solid state devices, and they are both capable of performing the applicant's intended function as disclosed in Col. 5, lines 55-58, lines 62-63 and are art recognized equivalents. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use SCRs as taught by Rajda in solid

state interconnection because of their ability to handle large load currents and their speed and ease of use. O'Leary further teaches a first circuit breaker SSS1 120 operable to be connected between the first input and the interconnection SSS3 121; a second circuit breaker SSS2 122 operable to be connected between the second input and the interconnection SSS3 121; and a controller 112 operable to control the interconnection SSS3 121 and the breakers SSS1 and SSS2 to isolate either one of the inputs, wherein the controller is able to manipulate the thyristors (or SCRs) in order to tie both of the outputs to a selected one of the inputs as disclosed in Col. 7, lines 62-67, Col. 8, lines 4-20, and Fig. 6.

O'Leary et al. does not disclose a first bypass operable to selectively connect the first input directly to the first output, thereby bypassing the interconnection and the first circuit breaker; and a second bypass s operable to selectively connect the second input directly to the second output, thereby bypassing the interconnection and the second circuit breaker.

Rajda et al. teaches a static transfer switch for switching a load between multiple power sources in response to a drop in quality of the power delivered from one of the sources. Rajda et al. teaches a first bypass operable to selectively connect the first input directly to the first output, thereby bypassing the interconnection and the first circuit breaker; and a second bypass operable to selectively connect the second input directly to the second output, thereby

bypassing the interconnection and the second circuit breaker as disclosed in Col. 5, lines 37-41.

Both teachings are related by being transfer-switching systems for switching a load between multiple power sources. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was to combine the teachings of Raja et al., which teaches a first bypass switch and a second bypass switch, with the high-speed source-transfer switching system of O'Leary et al. for the benefit of adding one bypass switch per phase to overcome failures in the controller, or with the solid state switches/breakers themselves.

With respect to the limitation of a voltage selected from the group consisting of 120, 240 208 and 480 volts in claim 11, these recited voltages are standard voltage values for motors as utilities supplying power in the U.S. are required to provide power in multiples of 120 Volts. Furthermore, it has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experiment. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

With respect to claim 12, Rajda et al. further teaches that the feeders and the interconnection 218 are rated for a voltage of 25 Kilo Volts as disclosed in Col. 9, lines 42-43. Furthermore, it has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experiment. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).


With respect to claim 13, Rajda et al. teaches a solid-state interconnection 218 wherein each pair of SCR's 228a-234a, 228b-234b, 228c-234c electrically couples a phase of the first bus with a phase of the second bus as disclosed in Fig.4.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dharti H. Patel whose telephone number is 571-272-8659. The examiner can normally be reached on 8:30am - 5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2800, Ext. 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DHP
12/08/2005



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PRIMARY EXAMINER